



**L3HARRIS®**  
FAST. FORWARD.

## **XL CONVERGE™ 150P**

Converged Single-Band P25 Land Mobile Radio with LTE

Intuitive, resilient, rugged — all in one powerful device.

The single-band XL Converge 150P is the first Land Mobile Radio (LMR) in its class that comes standard with built-in LTE, Wi-Fi®, Bluetooth® and GPS connectivity. This affordable solution delivers industry-leading audio with amplified sound, advanced noise cancellation technology and encryption, ensuring your communications will be loud, clear and secure. The XL 150P comes equipped with a full keypad for ease of use, and includes an antenna, battery, belt clip and XL Single-Bay+ charger.

### **RELENTLESSLY RELIABLE**

XL Radios run on systems that double down on redundancy, champion open networks and connect seamlessly with all P25-compliant organizations.

### **POINT-TO-POINT SECURE**

Our AES-256 encryption provides an end-to-end secure configuration, keeping you safe from threats.

### **BACKED WITH ALL-IN, 24/7 SUPPORT**

Our service packages keep your radios up and running with in-field preventative maintenance and software upgrades.

### **Key Benefits:**

- > AT&T® and Verizon® certified and FirstNet Ready®
- > Built-in LTE option with Wi-Fi, Bluetooth, GPS connectivity
- > 1.5 watt/4 watt max amplifier with woofer and tweeter speakers
- > Advanced noise cancellation technology
- > Meets stringent MIL-SPEC standards
- > Encrypted voice and data
- > Communications secured through a choice of encryption methods, including single-key AES and DES encryption

## SPECIFICATIONS FOR: XL 150 PORTABLE RADIO

GENERAL			
Full Keypad	TFT LCD w/DTMF keypad, navigation cluster, soft keys		
Dimensions w/Battery (H x W x D)	5.8 x 2.3 x 1.4 in (148.0 x 60.0 x 36.0 mm)		
Weight	<b>w/ Battery, Antenna and LTE Modem</b> 18.2 oz (516 g)	<b>w/Battery and Antenna</b> 16.2 oz (464 g)	<b>w/o Battery and Antenna</b> 10.4 oz (296 g)
Housing Color	Midnight Black		
<b>Interfaces:</b>			
<b>Front Display</b>	320 x 178 pixels, 1.8-inch transfective LCD, 16-bit color with backlight		
<b>Top Display</b>	128 x 32 pixels, OLED 1.1-inch multi-color backlight, sunlight readable		
<b>Keypad</b>	Backlight, 3 soft keys, 5-way navigation key, full DTMF keypad		
<b>Buttons</b>	Large PTT button, on/off knob, volume knob, red emergency button, 16-position top-mounted rotary knob, 2-position concentric switch, 4-position toggle switch, 3 programmable side buttons		
<b>Tx/Rx Indicator</b>	Multi-colored LEDs		
Channel/Talkgroup Capacity	1,250 total conventional channels and 13,824 total talkgroups		
Radio Programming	Firmware, personalities and feature set over Wi-Fi or LTE		
Transceiver	<b>Supported Bands</b> VHF, UHF, 700/800, 900 MHz, and LTE (optional)	<b>Channel Capacity</b> 12,500 (1,250 per mission plan)	
<b>Environmental:</b>			
<b>Relative Humidity</b>	5% @ 140°F (+60°C), 95% @ 122°F (+50°C)		
<b>Vibration</b>	USDA LMR Standard, Section 2.15 and MIL-STD-810G, Test Method 514.6		
<b>Drop Shock</b>	1.5 meter drop to concrete (exceeds TIA-603-D)		
<b>Ingress Rating</b>	IP65		
Operating Temperature <sup>1</sup>	-22° to +140°F (-30° to +60°C)		
Storage Temperature <sup>2</sup>	-40° to +176°F (-40° to +80°C)		
Altitude	<b>Operational</b> 15,000 feet (4,572 meters)	<b>In Transit</b> 40,000 feet (12,192 meters)	
Electrical Input Voltage	7.5 VDC (nominal)		
<b>GPS/GNSS Specifications:</b>	P25 standard Tier 2 and L3Harris In Band GPS		
<b>Channels</b>	52		
<b>Tracking Sensitivity (dBm)</b>	-166 (GPS), -163 (GLONASS)		
<b>Acquisition Sensitivity (dBm)</b>	-146 (GPS)		
<b>Cold Start w/-130 dBm input</b>	<35 seconds		
<b>Hot Start w/-130 dBm input</b>	<1 second		
<b>Safety: RoHS Compliant</b>			

<sup>1</sup> Extreme low temperatures adversely affect battery life

<sup>2</sup> Store batteries at +25°C ± 5°C

LMR TRANSMITTER				
Frequency Bands	VHF	UHF	700/800 MHz	900 MHz
<b>Frequency Ranges (MHz)</b> <b>Option 1 (US)</b>	136- 174	378-522	768-776, 798-806, 806-816, 851-861	896-902, 935-944
<b>Option2 (International)</b>	136- 174	378-522	763-776, 793-806, 806-825, 851-870	896-902, 935-944
<b>Rated RF Power/Talkaround (W)</b>	1-6	1-5	0.5-3	0.5-3.5
<b>Frequency Stability (-30 to +60°C)</b>	±1.0 ppm	±1.0ppm	±1.0 ppm	±1.0 ppm
<b>Modulation Limiting (kHz)</b>	2.5, 4, 5 (FM)	2.5, 4, 5 (FM)	2.5, 4, 5 (FM)	2.5, 4, 5 (FM)
<b>Audio Response (dB)</b>	+1/-3	+1/-3	+1/-3	+1/-3
<b>Spurious and Harmonics (dBc)</b>	-80 (FCC Part 90)	-80 (FCC Part 90)	-80 (FCC Part 90)	-80 (FCC Part 90)
<b>FM Hum and Noise Companion Receiver (dB):</b>				
<b>@ 25 kHz</b>	70	60	55	55
<b>@ 12.5 kHz</b>	47	47	45	45
<b>Audio Distortion (%)</b>	<1.25	<1.25	<1.25	<1.25
<b>Project 25 Modulation Fidelity (%)</b>	1.0	1.0	1.0	1.0
<b>Project 25 Adjacent Channel Power (dBc)</b>	>71	>71	>71	>70

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REGULATORY DATA					
Frequency Range	RF Output	Frequency Stability	FCC Type Acceptance No.	Applicable FCC Rules	NTIA Cert. No.
136 - 174 MHz	6 W	±1.0 ppm	OWDTR-0133-E	22, 74, 80, 90	SPS-217 49/1
378 - 522 MHz	4 W	±1.0 ppm	OWDTR-0133-E	22, 74, 80, 91	SPS-217 49/1
768 - 776 MHz	3 W	±1.0 ppm	OWDTR-0133-E	90	
798 - 806 MHz	3 W	±1.0 ppm	OWDTR-0133-E	90	
806 - 816 MHz	3 W	±1.0 ppm	OWDTR-0133-E	90	
806 - 825 MHz	3 W	±1.0 ppm	OWDTR-0145-E	90	
851 - 861 MHz	3 W	±1.0 ppm	OWDTR-0133-E	90	
851 - 869 MHz	3 W	±1.0 ppm	OWDTR-0145-E	90	
896 - 901 MHz	3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	
901 - 902 MHz	3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	
940 - 941 MHz	3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	
935 - 940 MHz	3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	
941 - 944 MHz	3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	
2402 - 2460 MHz	VHF single band	0.2 W	N/A	OWDTR-0133-E	15
	UHF single band	0.2 W	N/A	OWDTR-0133-E	15
	RB single band	0.2 W	N/A	OWDTR-0133-E	15
	NRB single band	0.2 W	N/A	OWDTR-0145-E	15
5180 - 5825 MHz	VHF single band	.01 W	N/A	OWDTR-0133-E	15
	UHF single band	.01 W	N/A	OWDTR-0133-E	15
	RB single band	.01 W	N/A	OWDTR-0133-E	15
	NRB single band	.01 W	N/A	OWDTR-0145-E	15

LMR RECEIVER				
Frequency Bands	VHF	UHF	700/800 MHz	900 MHz
Frequency Ranges (MHz): Option 1 (US) Option 2 (International)	136-174 136-174	378-522 378-522	768-776, 851-861 763-776, 851-870	935-944 935-944
Channel Spacing (kHz)	25 (wideband), 12.5 (narrowband), 6.25 equiv (TDMA P25 Phase 2)		25 (wideband), 12.5 (narrowband), 6.25 equiv (TDMA P25 Phase 2)	
Frequency Stability (-30 to +60°C)	±1.0 ppm	±1.0 ppm	±1.0 ppm	±1.0 ppm
Sensitivity (dBm): @ 12 dB SINAD	-122	-121	-121 (700 MHz) -120 (800 MHz)	-120 (900 MHz)
Project 25 Reference Sensitivity (dBm): @ 5% BER	-122	-121	-120.5	-120.5
Analog Selectivity (dB): @ 25 kHz @ 12.5 kHz	77 71	77 70	74 64	74 64
Project 25 Adjacent Channel Rejection (dB)	66.2	62.2	62	62
Offset Channel Selectivity (dB): @ NPSPEC	NA	NA	30	30
Intermodulation (dB)	80	81	77	77
Spurious and Image Rejection (dB)	90	87	80	80
FM Hum and Noise (dB): @ 25 kHz @ 12.5 kHz	-60 -55	-60 -53	-55 -50	-55 -50
Audio Output - Rated/Max (mW)	1500/4000	1500/4000	1500/4000	1500/4000
Audio Distortion @ Rated Power (%)	1.1	1.1	1.1	1.1

BROADBAND	
LTE Protocol	3GPP Release 11, Category 12, Power Class 3 UE with support for QoS QCI (Factory-installed option only)
LTE Option	FCC ID: N7NEM75S 4G LTE Bands: B2, B4, B5, B7, B12, B13, B14, B17, B26, B29*, B30*, B66 3G Bands: B2, B5 Carrier Certification: FirstNet, AT&T, Verizon, Telus, Rogers
Wi-Fi	802.11 b/g/n 2.4 GHz and 5 GHz; supports 24 preconfigured and 8 user configured networks
Bluetooth	Bluetooth 4.0 (128-bit encryption)

\*Downlink only for Carrier Aggregation

## SPECIFICATIONS FOR: XL 150 PORTABLE RADIO

DIGITAL OPERATION	
Protocol	P25
Vocoding Method	AMBE+2 enhanced full rate and enhanced half rate
Signaling Rate (kbps)	9.6
Modulation	Phase 1 Tx: C4FM; Rx: C4FM and CQPSK      Phase 2 Tx: HCPM; Rx: HDCQPSK
L3Harris Failsoft operation	Switch to site trunking mode (for L3Harris infrastructure) or P25 conventional. Conventional Failsoft for Motorola.


ENCRYPTION	
Encryption Algorithms	Voice Encryption: Single-key AES/DES, Encryption Lite (ARC4), 256-bit AES P25, 64-bit DES Control Channel Encryption: 128-bit AES (LLA)
Encryption Keys per Radio	Number of Encryption Keys per Keystore (up to 5 keystores per radio): 1 AES or 1 DES, 5 LLA, 8 Encryption Lite (ARC4)
Keying	L3Harris Key Loader, Motorola KVL 3000+/4000/5000
Standards	FIPS 197

BATTERIES			
Type	Dimensions (H x W x D)	Weight	Capacity (mAh)
Li-Ion	3.0 x 2.3 x 0.9 in	4.8 oz (136 g)	3100

### ACCESSORIES

#### Speaker Microphones


L3Harris offers a versatile line of speaker microphones for the XL150P. In addition, a premium leather holster is available for attaching to a belt or wearing with the premium leather shoulder strap.



XL Extreme Speaker Mic




Standard Mic



REVO NC2 Speaker Mic



Advanced Bluetooth Speaker Mic



500 Fire-Rated Speaker Mic

#### Chargers

The XL 150P comes bundled with a XL Single-Bay+ Charger.



XL Single-Bay+ Charger



Multi-bay Charger\*



Vehicular Charger\*

#### Additional Accessories Available

Bluetooth speaker microphones, Bluetooth covert earpieces, standard speaker microphones, Lithium Ion battery, PC programming software and cables, other subminiature surveillance accessories, and antennas.

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